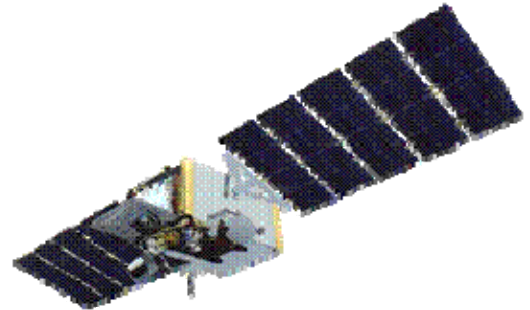




Space Tracking and Surveillance System

The Missile Defense Agency is pursuing the Space Tracking and Surveillance System program as a space-based sensor component of the Ballistic Missile Defense System. The program uses sensors capable of detecting visible and infrared light. The Space Tracking and Surveillance System will become part of a constellation of land-, sea-, air-, and space-based Ballistic Missile Defense System sensors.



Overview

- Two research and development satellites will be launched into low earth orbit in 2007.
- A ground segment will be developed to operate the satellites. This ground segment will be designed for re-use with subsequent research and development satellites.
- The Block 2006 Space Tracking and Surveillance System will demonstrate the key functions of a space based sensor, passing missile tracking data to missile defense interceptors with the accuracy and timeliness necessary to enable them to successfully intercept missile targets.
- Lessons learned from the on-orbit operation of the Block 2006 demonstration satellites will provide a sound foundation to proceed with the fielding of an operational constellation beginning in the 2012 timeframe.

Block 2006 Program

- The Block 2006 demonstration satellites consist of refurbished hardware originally built as flight demonstration satellites.
- Two satellites will be launched together on a single Delta II launch vehicle in 2007.
- The Space Tracking and Surveillance System ground station will become operational approximately one year ahead of the launch date, allowing adequate time to train operators. The ground segment will communicate with the missile defense Command, Control, Battle Management and Communication system.
- The Space Tracking and Surveillance System will perform on-orbit testing of sensor performance against ground targets, airborne targets and short and long range ballistic missile targets.
- The Block 2006 satellites are expected to be available for two to four years after launch.

Block 2008 Program

- The Block 2008 program's mission is to take lessons learned from design, development and early on-orbit testing of the Block 2006 satellites and use them to upgrade the Space Tracking and Surveillance System.
- By upgrading ground station and spacecraft software, the Block 2008 effort will improve the Block 2006 experiment, reduce risk for Block 2012, and improve the contingency operations capability.

Block 2012 Program

- Beginning in 2012, the Missile Defense agency will field a constellation of operational Space Tracking and Surveillance System satellites to enable global missile tracking.
- The Block 2012 program is in the initial planning stage, with prime contract award anticipated in early 2007.
- Block 2012 satellites will use the same infrared and visible sensor types as the Block 2006 satellites. Improvements will be made in satellite lifetime, producibility, and ability to process and communicate missile tracking data to interceptors.